

**Docket No.: 0094.067A****In the Claims:**

Please amend the claims as shown below.

1. **(Withdrawn)** A tubular microstructure comprising an assembly of nanoparticles having surface functionality capable of self-bonding.
2. **(Withdrawn)** A tubular microstructure according to claim 1, wherein the surface functionality is hydroxy functionality.
3. **(Withdrawn)** A tubular microstructure according to claim 1, wherein the nanoparticles comprise metal oxide.
4. **(Withdrawn)** A tubular microstructure according to claim 1, wherein the nanoparticles comprise titanium dioxide.
5. **(Withdrawn)** A tubular microstructure according to claim 1, wherein the nanoparticles comprise aluminum oxide.
6. **(Withdrawn)** A tubular microstructure according to claim 1, wherein the nanoparticles comprise zinc oxide.
7. **(Currently Amended)** A process for producing microtubes from nanoparticles, said process comprising  
forming a dispersion of the nanoparticles in a liquid phase; and  
freeze-drying the dispersion to produce microtubes comprising an assembly of the nanoparticles;  
wherein the nanoparticles comprise surface functionality capable of self-bonding and bonding with the liquid phase during freeze-drying.
8. **(Currently Amended)** A process for producing microtubes from nanoparticles having surface hydroxy functionality, said process comprising  
dispersing the nanoparticles in a hydrogen-bonding liquid; and  
freeze-drying the dispersion to produce microtubes comprising an assembly of the nanoparticles;  
wherein concentration of the nanoparticles in the hydrogen-bonding liquid ranges from 0.0025 to 0.0625 g/ml.

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9. **(Original)** A process according to claim 8, wherein the nanoparticles comprise metal oxide.
10. **(Original)** A process according to claim 8, wherein the nanoparticles comprise titanium dioxide.
11. **(Original)** A process according to claim 8, wherein the nanoparticles comprise aluminum oxide.
12. **(Original)** A process according to claim 8, wherein the nanoparticles comprise zinc oxide.
13. **(Original)** A process according to claim 8, wherein the hydrogen-bonding liquid comprises water.
14. **(Original)** A process according to claim 13, wherein pH of the dispersion ranges from 1.8 to 2.8.
15. **(Original)** A process according to claim 13, wherein pH of the dispersion ranges from 1.9 to 2.7.
16. **(Original)** A process according to claim 13, wherein pH of the dispersion ranges from 2.0 to 2.6.
17. **(Original)** A process according to claim 13, wherein pH of the dispersion ranges from 2.1 to 2.5.
18. **(Original)** A process according to claim 13, wherein pH of the dispersion ranges from 2.2 to 2.4.
19. **(Original)** A process according to claim 8, wherein average particle size of the nanoparticles ranges from 10-30nm.
20. **(Original)** A process according to claim 8, additionally comprising centrifuging the dispersion and freeze-drying a supernatant portion of the centrifuged dispersion.

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21. **(Currently Amended)** A process for producing microtubes from nanoparticles having surface hydroxy functionality, said process comprising

forming a dispersion consisting essentially of the nanoparticles in a hydrogen-bonding liquid; and

freeze-drying the dispersion to produce microtubes comprising an assembly of the nanoparticles;

wherein concentration of the nanoparticles in the liquid ranges from 0.0025 to 0.0625 g/ml.

22. **(Original)** A process according to claim 21, wherein the hydrogen-bonding liquid comprises water.

23. **(Withdrawn)** A microtube produced by the process of claim 8.